

CLAIMS

1. A controller for controlling a machine according to control programs which are created in an NC program format, comprising:

storage means for storing the control programs created in the NC program format in a way that distinguishes between a program to be executed periodically and a program to be executed according to an execution command;

conversion means for analyzing the programs stored in the storage means and converting the programs into programs in a form executable by the controller; and

execution means for periodically executing the program to be executed periodically, converted by the conversion means into the executable form, from the time when power to the machine is turned on until the time when the power is shut down.

2. The controller according to claim 1, wherein the program to be executed periodically controls a sequence of the machine, the machine being a machine tool or an industrial machine.

3. The controller according to claim 2, wherein the program for sequence control includes signal names of input/output signals for the machine and the controller, addresses of the input/output signals, and control commands for the input/output signals.

4. The controller according to claim 3, wherein the signals names and addresses of the input/output signals are coded with alphabetic characters and numeric characters.

5. The controller according to claim 2, wherein the program for sequence control includes a condition and a control command executed according to the condition.

6. The controller according to claim 1, wherein the program to be executed according to said execution command is a program that controls motion of an axis of the machine.

7. The controller according to claim 1, wherein said storage means stores the program in the executable form, which has been obtained by converting the program to be executed periodically by means of the conversion means, together with, or instead of, the program to be executed periodically.
8. The controller according to claim 1, wherein the conversion means converts the program to be executed periodically into the program in the executable form and stores the converted program in the storage means either when the machine is turned on or when the program is originally stored in the storage means.
9. The controller according to claim 1, wherein the program to be executed periodically is distinguished from the program to be executed according to an execution command by program names of the programs.
10. The controller according to claim 1, wherein the program to be executed periodically is distinguished from the program to be executed according to an execution command by affixing a specific symbol to each command coded in the program to be executed periodically.